



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

March 4, 2022

Colonel Damon Delarosa
U.S. Army Corps of Engineers
P.O. Box 6898
JBER, Alaska, 99506-0898

Re: Bonanza Channel/Safety Sound Essential Fish Habitat Assessment, POA-2018-00123

Dear Col. Delarosa:

We reviewed your January 4, 2022, request for consultation regarding IPOP, LLC's revised essential fish habitat (EFH) assessment and the January 2022 Dredging and Environmental Management Plan (DEMP). The purpose of this project is to mine for gold in the Bonanza Channel of Safety Sound. The proposed scope of work includes dredging and placing fill in vegetated wetlands and estuarine nearshore environments that are essential habitats for subsistence, commercial, and recreational important fishery resources. IPOP, LLC plans to commence project operations in the summer of 2022 with a case study followed by a five-year mining plan.

Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act requires federal agencies to consult with us on all actions that may adversely affect EFH and other aquatic resources. The EFH consultation process is guided by the requirements of our EFH regulation at 50 CFR 600 Subpart K, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation process. In support of this consultation process, you provided a notice of the proposed action and your agency's conclusion regarding impacts on EFH.

We completed an expanded EFH consultation in response to the updated EFH assessment submitted to you by Beau Epstein of IPOP, LLC due to the potential for substantial adverse effects to EFH. We were unable to conduct a site visit due to Covid-19 travel restrictions. We have been engaged in early coordination with your staff since 2018 to facilitate discussion of measures to conserve EFH and provided comment letters: September 24, 2018; September 23, 2019; September 14, 2020; October 20, 2020; May 20, 2021; August 13, 2021; August 19, 2021; and October 13, 2021. Our comments consistently expressed concern for the extent of potential impacts and limited scope of mitigation. Absent a comprehensive mitigation plan, the scope and scale of the proposed action will result in long-term and permanent substantial adverse effects to EFH. Based on our review we recommend that you deny this permit. We offer the following comments and recommendations on this project pursuant to the above referenced regulatory process.

Proposed Action

The case study includes two phases. Phase 1 would dredge and backfill approximately 160,000 cubic yards (CY) of silt, sand, and gravel from a 5.9 acre test area.



Phase 2 would expand the test area by dredging and backfilling up to an additional 135,000 CY of material from a 4.6 acre test area. The case study would also fill an additional 13.9 acre shallow littoral area to dispose of excess dredged material and create mudflats. A 1,200-ft long, seven-foot deep access channel would remain for the duration of the full-scale mining project and after reclamation. The case study will directly impact 24.4 acres of aquatic habitat.

The five-year mining proposal would dredge 21.7 acres per year, plus an additional 1.8 acres for an access channel that is up to 4,500-ft long, ten foot deep, for a total of 110.3 acres dredged. The mined area would be backfilled with dredged materials and fill an additional 57.8-acre shallow littoral habitat with excess dredged material. Total impacts from the case study and the five-year mining plan would be approximately 195 acres of waters of the U.S., including wetlands, from the dredging and disposal of approximately 4,827,161 CY of material (estimated to have a bulked volume of approximately 5,173,423 CY).

Essential Fish Habitat

The North Pacific Fishery Management Council and NOAA Fisheries have identified EFH for all five species of Pacific salmon at the proposed project area (NPFMC 2021). Moreover, the Alaska Anadromous Waters Catalog (ADFG 2021) describes the project area as within the known range of the Coho salmon (*Oncorhynchus kisutch*), Chum salmon (*Oncorhynchus keta*), and Pink salmon (*Oncorhynchus gorbuscha*). Further, the project site supports submerged aquatic vegetation (SAV), including Sago pondweed (*Stuckenia pectinatus*), widgeon weed (*Ruppia spp.*), horned pondweed (*Zannichellia palustris*), and eelgrass (*Zostera marina*), comprising habitat necessary for Pacific salmon and other fishes to complete their lifecycle (e.g., migration, spawning, rearing). Forage fish and other prey resources that utilize the project area are EFH attributes (e.g., saffron cod as a prey species for Pacific salmon) supporting federally managed species.

The applicant conducted field studies, which identified stickleback, sandlance, starry flounder, least cisco, sculpin, and potentially Dolly Varden. The EFH assessment provided data from a small fish sampling effort with a limited number of sample locations. It is unclear how IPOP, LLC selected these sampling sites. It is also unclear why IPOP, LLC did not consider the case study site or test dredging site between the islands for fish sampling.

Low salmon runs are affecting communities dependent on commercial and subsistence fishing for Pacific salmon. Annually, Alaskans in the Nome area participate in commercial and subsistence fisheries for Pacific salmon. In particular, subsistence fishing is an important element of the region's social and cultural heritage, as well as a crucial component of the subsistence sector of the local and state's economy (Menard et al. 2020). In 2021, the Norton Sound area experienced poor runs of Chum and Coho salmon, which resulted in the poorest commercial and subsistence harvest of those species since the record low harvest of the early 2000s. The commercial Coho salmon catch of 7,189 fish was 5% of the recent 5-year (141,864) average and just over 6% of the recent 10-year (112,578) average. The Coho salmon catch was the lowest since 2002 (1,759) and the second lowest in the last 40 years. The commercial Chum salmon catch of 6,410 fish was 5% of the recent 5-year (127,216) average and just over 5% of the recent 10-year (118,336) average. The Chum salmon catch was the lowest since 2005 (3,983) and 3 other years in the early 2000s. Quantitative subsistence catch information from 2021 is not yet available; however, limits on subsistence salmon harvest were required in the Nome Subdistrict

to manage the stocks (Menard 2021). Qualitatively, subsistence harvests were down due to a combination of poorer runs than the record runs of recent years and extremely high water, affecting fishing effort (Jim Menard personal communication February 3, 2022). Any negative impacts to the Nome aquatic ecosystem can further diminish salmon stocks.

Assessment of Effects to EFH

Your agency has concluded that the project as proposed would have adverse effects on EFH, especially for Chum salmon and its prey. The EFH final rule (67 FR 2343, January 17, 2002) defines an adverse effect as “any impact which reduces the quality and/or quantity of EFH” (50 CFR 600.810(a)). Based on our review of the proposed action and designated EFH for several federally managed species within the project area, we have determined that this project is likely to have substantial adverse impacts to EFH in the Bonanza Channel. Substantial adverse effects are effects that may pose a relatively serious threat to EFH and typically could not be alleviated through minor modifications to a proposed action.

The proposed action will result in substantial adverse effects to EFH for federally managed species, as well as special aquatic sites under 404 of the Clean Water Act, and will result in permanent and irretrievable impacts on the local aquatic ecosystem and fishery resources. The EFH assessment describes impacts resulting from the full-scale mining plan and the case study. Those impacts include habitat removal and disturbance; permanent loss of fish habitat; permanent impacts to SAV; potential for direct damage or mortality to fishes; changes in water temperature; short term to seasonal increases in suspended sediment; constrained fish passage within Bonanza Channel; and noise impacts to fishes. The proposed action includes limited site remediation. The excavated access channel will remain after operations are complete. The wetland fill will result in a conversion of habitat types with unknown ecological functions and value. Likewise, the replaced material in the dredging footprint will represent a conversion or loss of habitat functions and values for an unknown or permanent duration. Overall, the proposed actions will incur substantial permanent habitat conversion and long-term or permanent loss of ecological functions and values.

A deeper channel in combination with areas made shallower due to the discharge of dredged materials, as proposed by the applicant, would result in an overall reduction in channel area that would support fish migration. If fish must use shallow areas to migrate out during the mining period, they become more susceptible to predation causing direct mortality to juvenile fish. During the mining operations, when sediment curtains block portions of the channel, upstream migrating adult salmon may not be able to use shallower areas and could be blocked from passage. If approved, 15 acres of Bonanza Channel would be contained within a sediment curtain and isolated from the rest of the channel at any one time.

The EFH assessment states that, “juvenile Chum salmon use Safety Sound and the connected waterways” and that “the project as proposed would have adverse effects on EFH, especially for Chum salmon and its prey.” The study cited in the assessment established that fish spend up to six weeks to months in the brackish water while they adjust to saltwater in the project area. Moreover, the identification of the Bonanza River as a potentially important Chum salmon stock (Bell et.al, 2018) and the evidence that these salmon utilize the Bonanza Channel signify adverse impacts to Chum salmon are likely. During project operations, there would be direct loss of habitat as it would be unavailable for Chum salmon use due to containment within a silt curtain,

increased turbidity from dredging and disposal of the substrate, and their tendency towards noise avoidance. The potential for increased predation of juveniles, temporary blockage of fish passage (specifically in-migrating adult salmon) and the permanent restriction of migratory pathways due to the proposed project could decrease the amount of Chum salmon returning to the Bonanza River to spawn, equating to a reduction of that stock of Chum salmon. We agree that the effects to other salmon species would be similar to the effects on Chum salmon.

The EFH assessment states that, “The dredging work would result in temporary to long term losses of benthic invertebrates and submerged aquatic vegetation which may recolonize within a few growing seasons.” The applicant’s proposed reclamation plan is to leave a deeper channel and make adjacent areas shallower, resulting in an overall decrease in EFH through the alteration of physical, chemical, and biological properties that are used by fish and support other habitat features. The applicant’s proposal for re-growing SAV and enhancing salmon habitat ‘refugia’ are lacking supportive peer-reviewed scientific data and remains unproven. Mitigations of the potential impacts caused by the project have a questionable likelihood of success because the design of the proposed mitigation is unproven. The applicant has not shown that the restoration of SAV in the large, dredged area would recover as quickly as that in the small test pits. The recovery success, extent, and rate of SAV regrowth is highly variable (Kemp et al. 2004). Moreover, section 3.1 of the DEMP states, “The applicant recognizes that depending on bulking factors of material, some seagrass habitat may be altered and some of this area may be replaced by mudflat habitats, but no net loss of special aquatic sites is expected to occur.” Claiming there is no net loss of special aquatic sites as described in the DEMP does not take into account the habitat conversion of SAV with mudflat habitats, and the associated loss of SAV specific functions and values that support EFH.

Adverse impacts to EFH from the proposed mine on depressed stocks of salmon have the potential to impact local fisheries and the communities that depend on strong returns of healthy salmon. These fisheries are critical to the future human and wildlife uses of those fish and to the continuation of the local, subsistence based mixed economies and way of life (Goldsmith 2007). According to Wolfe (2007), reduced subsistence opportunities result in fewer opportunities for young people to learn cultural subsistence practices and techniques, and this knowledge may be lost to them in the future.

EFH Recommendations

Impacts of the proposed project, for which insufficient mitigation is proposed, would result in substantial adverse effects to EFH and a net loss of habitat functions and ecological value. Management decisions made based on significantly limited data are difficult to defend and more importantly may cause harm to the fishery resource, rural subsistence users, and commercial fishermen who depend on the resource. The applicant has not minimized the size or duration of the project or its impacts, and has instead increased the project footprint since early coordination began in 2018. The applicant has not thoroughly investigated alternatives that would reduce these impacts. Therefore, we recommend USACE deny the permit for the proposed project based on the potentially substantial adverse effect to EFH, aquatic resources of national interest, and special aquatic sites, and the lack of proven mitigation and reclamation measures.

Should you approve this permit, and in accordance with Section 305(b)(4)(A) of the MSA, we offer the following additional conservation recommendations to further avoid, minimize,

mitigate, or otherwise offset effects to EFH. These conservation recommendations are in addition to our previous comments made in the attached letters, and are consistent with the proposed mitigation measures for reducing impacts on the habitat resources listed in your January 4, 2022 letter.

1. No in-water work from April 1 through July 16 of any year to protect out-migrating salmon smolts.
2. Compensatory mitigation based on current guidelines should be required to avoid, minimize and mitigate adverse effects to EFH, including direct and indirect effects. The applicant should develop the mitigation plan in consultation with us and other appropriate agencies.
3. The applicant should investigate disposal options that avoid discharging dredged material into wetlands, such as upland disposal, geotextile tubes, or beneficial reuse.
4. Contour tailings and other disposed or displace coarse materials to approximate original elevations, followed by the spreading of fines and organic material without further disturbance to adjacent wetlands.
5. Plant all disturbed areas with seeds or cuttings from native vegetation to accelerate the recovery of the site and to prevent erosion.
6. Maintain drainage patterns of the surrounding wetlands in their natural state.
7. The dredge material should be graded each work shift to prevent the creation of pools on the fill surface that could trap out-migrating salmon and other marine fishes between high tides. Dredge spoils reworked by tidal action can create pools that trap out-migrating juvenile salmon and other marine fish species. These trapped fish often die.
8. Rehabilitate or restore all disturbed sites within two years of abandonment using state-of-the-art-techniques, subject to approval by the District Engineer.
9. Maintain the sediment curtains in place until the suspended sediment concentrations within the sediment curtain are within 5% or less of the suspended sediment outside of the sediment curtain.
10. The following monitoring plans should be required:
 - i. Record baseline conditions data prior to the project, during the project, and following completion of reclamation to monitor recovery. The permittee should include transects across the project area and 'refugia' channels using techniques to document the effort, such as: eDNA surveys for Pacific salmon and acoustic, video, and grab sampling.
 - ii. Monitor dissolved oxygen, temperature and salinity profiles of all dredged access channels and stratified fish 'refugia'. The plan should include monitoring standards and thresholds, a proposed biological objective, and timelines for monitoring.
 - iii. Evaluate direct project effects to submerged aquatic vegetation, fisheries, wave climate, and shoreline condition.

- iv. Document changes in the substrate and species utilizing the habitat. This data could benefit the permittee and future applicants should this type of mining activity prove to cause negligible effects. In addition, such information would also be valuable for assessing cumulative impacts of such activities.
- 11. Conduct all monitoring based on scientifically accepted practices to ensure the data collected is valid for management decisions.
- 12. The Adaptive Management Plan described in the DEMP should include qualified biologists or professionals to monitor the project for intended performance objectives.

We appreciate the opportunity to comment on this action and request a written response to our comments within 30 days pursuant to Section 305(b)(4)(B) of the MSA. If your response is inconsistent with our recommendations, please explain the reasons for not following our recommendations, including the scientific justification for any disagreements over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects (50 CFR 600.920(k)). Significant changes to the project may require reinitiating a consultation. Seanbob Kelly seanbob.kelly@noaa.gov or Stefanie Coxé stefanie.coxe@noaa.gov are available to answer questions or discuss further actions.

Sincerely,



Robert D. Mecum
Acting Administrator, Alaska Region

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Enclosures:

NMFS comment letters dated September 24, 2018; September 23, 2019; September 14, 2020; October 20, 2020; May 20, 2021; August 13, 2021; August 19, 2021; and October 13, 2021.

References:

- Alaska Department of Fish and Game (ADFG). 2021. Alaska Waters Catalog. Accessed online at: <https://www.adfg.alaska.gov/sf/SARR/AWC/index.cfm?ADFG=main.interactive>
- Bell, J., Keith, K.D., and Scanlon B.P. 2018. Use of Acoustic Tags to Examine Movement of Chum Salmon in Nearshore Marine Waters of Northern Norton Sound 2015-2016. Fishery Data Series No. 18-15.
- Goldsmith, S. 2007. The remote rural economy of Alaska. Institute of Social and Economic Research. University of Alaska Anchorage.
- Kemp, M, W., Batleson, R., Bergstrom, P., Carter, V., Gallegos, C.L., Hunley, W., Karrh, L., Koch, E.W., Landwehr, J.M., Moore, K.A. and Murray, L., 2004. Habitat requirements for submerged aquatic vegetation in Chesapeake Bay: Water quality, light regime, and physical-chemical factors. *Estuaries*, 27(3), pp.363-377.
- Menard, J; Soong J., Bell, J., Neff, L., and Leon, J.M. 2020. Fishery Management Report No. 20-05 2018 Annual Management Report Norton Sound, Port Clarence, and Arctic, Kotzebue Areas. Alaska Department of Fish and Game. Assessed online at: <https://www.adfg.alaska.gov/FedAidPDFs/FMR20-05.pdf>
- Menard, J. 2021. Norton Sound Salmon Season Summary [Revised], Alaska Department of Fish and Game. Assessed online at: <https://www.adfg.alaska.gov/static/applications/dfnewsrelease/1347621568.pdf>
- North Pacific Fishery Management Council (NPFMC). November 2021. Fishery Management Plan for the salmon Fisheries in the EEZ off Alaska, NPFMC, Anchorage, AK. Assessed online at: <https://www.npfmc.org/wp-content/PDFdocuments/fmp/Salmon/SalmonFMP.pdf>
- Wolfe, R.J. 2007. Human Systems and Sustainable Salmon: Social, Economic, and Cultural Linkages. Paper presented at the Sustainability of the Arctic-Yukon-Kuskokwim Salmon Fisheries Conference, Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative, Fairbanks, February 6-9, 2007, 14 pp.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

November 20, 2020

Mr. William Burnett
Yukuskokon Professional Services, LLC.
P.O. Box 870507
Wasilla, Alaska 99687

Re: Public Notice Comments to Application for Permit POA-2018-00123; Bonanza Channel
Placer Mining Project

Dear Mr. Burnett:

The National Marine Fisheries Service (NMFS) has received your letter dated November 10, 2020. We appreciate the information you provide, which clarifies your proposed placer mining project and look forward to further collaboration with IPOP in response to comments submitted by the U.S. Army Corps of Engineers (USACE) and on behalf of NMFS and other Federal Agencies.

We welcome the opportunity to participate in the virtual meeting you suggest. Please offer three dates and times in December and we will coordinate our schedules. Further, we will send you a participant list for the call.

Early coordination with IPOP and the USACE is a first step in an Essential Fish Habitat (EFH) consultation. Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires Federal agencies to consult with NMFS on all actions that may adversely affect EFH. We reviewed the draft EFH Assessment USACE provided in April, 2018, and responded that the draft EFH Assessment was incomplete in its description of the project, analysis of impacts to EFH, and the identification of EFH for federally managed fish species. To initiate an EFH consultation, USACE will submit a complete EFH Assessment which meets the requirements in Federal regulations at 50 CFR 600.920(e). Once received, we will provide EFH Conservation Recommendations, which may include measures to avoid, minimize, mitigate, or otherwise offset adverse effects to EFH.


References to assist you in improving the EFH Assessment are listed below:

- Essential Fish Habitat Consultations
<https://www.fisheries.noaa.gov/national/habitat-conservation/consultations-essential-fish-habitat>
- Frequently Asked Questions: Essential Fish Habitat in Alaska
<https://www.fisheries.noaa.gov/alaska/habitat-conservation/frequently-asked-questions-essential-fish-habitat-alaska>
- Alaska Essential Fish Habitat (EFH) Mapper
<https://www.fisheries.noaa.gov/resource/map/alaska-essential-fish-habitat-efh-mapper>



We look forward to participating in a future online meeting. If you have any questions regarding our comments, please contact seanbob.kelly@noaa.gov, (907) 271-5195 or stefanie.coxe@noaa.gov, (907) 271-5006.

Sincerely,


for

James W. Balsiger
Administrator, Alaska Region

CC:

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

National Marine Fisheries Service

P.O. Box 21668

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September 23, 2019

Colonel Phillip J. Borders
U.S. Army Corps of Engineers
P.O. Box 6898
JBER, Alaska, 99506-0898

Re: POA-2018-00123 Bonanza Channel/Safety Sound

Dear Colonel Borders:

The National Marine Fisheries Service (NMFS) Habitat Conservation Division (HCD) has received the U.S. Army Corps of Engineers' (USACE) General Permit Agency Coordination (GPAC) for the re-verification process of the Individual Permit issued under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. On September 24, 2018, NMFS submitted formal comments on the original GPAC for IPOP, LLC exploration program consisting of GeoProbe drilling and environmental baseline studies in several mining claims located in Safety Sound, near Nome, Alaska. The re-verification process is necessary due to changes made to original permit stipulations, specifically two new boring locations, new access points, and the timing of the drilling.

Essential Fish Habitat

The Fishery Management Plan (FMP) for the Bering Sea/Aleutian Islands King and Tanner Crabs (Crab FMP) identifies EFH for Norton Sound red king crab (*Paralithodes camtschaticus*) in marine waters near the proposed project site. This EFH does not overlap with the project area as currently proposed; however, HCD recommends the USACE consider the importance of this fishery when analyzing the effects of any future large scale mining project in Safety Sound.

Additionally, NMFS has designated EFH for Chinook salmon (*Oncorhynchus tshawytscha*), Coho salmon (*Oncorhynchus kisutch*), Chum salmon (*Oncorhynchus keta*), Sockeye salmon (*Oncorhynchus nerka*) and Pink salmon (*Oncorhynchus gorbuscha*) in the FMP for the Salmon Fisheries in the EEZ Off Alaska (Salmon FMP). NMFS does not define EFH for Dolly Varden or humpback whitefish.

NMFS notes the project described in this revised GPAC would occur during salmon spawning migrations to the local anadromous waters and not during ice covered months as previously required. Moreover, two new proposed boreholes would be drilled within 0.5 miles of the mouth to the salmon bearing Solomon River. Both of these new actions do not comply with our initial EFH Conservation Recommendations in our 2018 letter. Therefore, NMFS concurs with the USACE determination that the described activity may adversely affect EFH in the project area.

However, the adverse effects would be minimal and temporary because of the small scale of the activities and they would be limited to Safety Sound, thus limiting the impact footprint. Further, NMFS recognizes Alaska Department of Fish and Game's Fish Habitat permits FH19-III-0145 and FH19-III-0166 authorize these changes within the State of Alaska's Title 16 Permit process.



After considering the EFH information provided within the new GPAC, NMFS maintains its September 24, 2018 determination; an EFH Assessment is not necessary at this time. HCD would like to be informed of any findings from the exploration program that have relevance to the following:

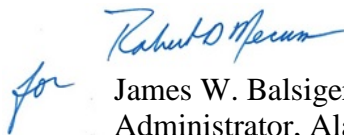
- Results from environmental baseline studies, including bathymetric, eelgrass, and water quality information
- Any observations of red king crab or saffron cod, and approximate locations of those observations if possible

In anticipation of larger scale activities planned for this project area in the future, HCD is providing the following information to USACE, in the event an Individual Permit application and resultant EFH consultation occur:

- Any action that *may adversely affect* EFH requires a clearly referenced EFH Assessment in either a separate document or a support document (50 CFR Part 600.920(e)).
- The mandatory contents of an EFH Assessment should be labelled accordingly and include: (i) a description of the action, (ii) an analysis of the potential adverse effects of the action on EFH and the managed species, (iii) the Federal agency's conclusions regarding the effects of the action on EFH, and (iv) proposed mitigation, if applicable.
- Please note an EFH Assessment is to be completed by the action agency, if needed. Once an EFH Assessment is received by NMFS, HCD will then review and offer EFH Conservation Recommendations, if applicable. We recommend referencing the recent publication, [*Impacts to EFH from Non-fishing Activities in Alaska*](#), when developing an EFH Assessment.

In accordance with Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act, the USACE is required to consult with NMFS on activities that may adversely affect EFH. We look forward to your findings and any response to our concerns. Should the proposed action, its effects on EFH, or mitigation measures change significantly, NMFS wishes to be informed of any such changes in order to reassess our determination. If you have any questions regarding our recommendations for this project, please contact Seanbob Kelly at seanbob.kelly@noaa.gov or (907) 271-5195.

Sincerely,

for

James W. Balsiger, Ph.D.
Administrator, Alaska Region

cc: Colonel Phillip J. Borders, USACE, Phillip.J.Borders@usace.army.mil
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UNITED STATES DEPARTMENT OF COMMERCE
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May 20, 2021

Colonel Damon Delarosa
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P.O. Box 6898
JBER, Alaska, 99506-0898

Re: IPOP Bonanza Channel/ Safety Sound Mine Project, POA-2018-00123 EFH assessment

Dear Colonel Delarosa:

We have reviewed the United States Army Corps of Engineers' (USACE) Essential Fish Habitat (EFH) assessment for the proposed IPOP Bonanza Channel/ Safety Sound Mine Project as received on April 8, 2021, as well as the Public Notice of Application for Permit POA-2018-00123 received on April 16, 2021. The IPOP Bonanza Channel/ Safety Sound Mine Project is in western Alaska, approximately 24 miles southeast of Nome and 539 miles northwest of Anchorage. It will consist of three phases: exploratory drilling, case study, and full-scale mining. Your assessment recognized that the project, as proposed, could have some long term impacts to EFH. The assessment further details the types of impacts these actions could cause, including "habitat removal or disturbance, water, direct damage or mortality to fishes, changes in water flow, changes in water temperature, release of sediments, release of contaminants, blocking of fish passage, noise impacts to fishes, and impacts to fishes in the marine environment".

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act require you to consult with us on projects such as this that may affect EFH and other aquatic resources. The EFH consultation process is guided by the requirements of our EFH regulations at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in the consultation process. In support of the consultation process, we provided early coordination comments to the USACE on September 14, 2020. In addition, on April 19, 2021, we requested select documents referenced in the EFH assessment. Those documents were not received until May 11, 2021.

Based on our review of the information available, we have determined that this version of the EFH assessment is incomplete. An in-water mine of this scale has the potential to result in substantial, long term impacts to EFH beyond those described in the EFH assessment. We note the project description and EFH assessment have not fully described project components that have the potential to have substantial adverse effects on EFH designated at and surrounding the project area. Substantial adverse effects pose a serious threat to EFH that cannot be alleviated through modifications to a proposed action. In support of the mandated consultation process and to better assess the project related impacts, we are requesting the applicant respond to our comments and data requests, and submit a revised complete EFH assessment.



We note the key definitions we use in EFH consultations. *EFH* means those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity (16 U.S.C. 1802(10)). *Waters* include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate (50 CFR 600.10). *Adverse effect* means any impact that reduces quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality and/or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810).

The following comments apply to the proposed project footprint, the adjacent nearshore, and all three phases of the proposed 5-year project timeline. Our comments include clarifying questions and additional data requests to support our review of the project and your EFH assessment.

Overarching Comments

The EFH assessment underestimates the value and function of different types of habitat in the project area. Freshwater life cycles of Pacific salmon and prey should be considered in the EFH assessment. The North Pacific Fishery Management Council (Council) and our agency have designated freshwater salmon habitat as EFH using the Alaska Department of Fish and Game's Anadromous Waters Catalog and associated text description found in the Fishery Management Plan for the Salmon Fisheries in the EEZ off Alaska (Salmon FMP). The NOAA EFH Mapper is a useful representative tool to initiate the consultation process and inform the EFH assessment. However, the EFH text descriptions, included in the species specific fishery management plans, provide specific details to inform a complete EFH assessment.

Pristine wetland habitat areas connected to the project area (e.g., El Dorado River) are recognized in the State of Alaska's Anadromous Waters Catalog as habitat for all five Pacific salmon species. The saturated wetlands immediately north of the project area are likely a significant source of organic material that provide nutrients to the surrounding estuary. Thus, the lagoon habitat at the project area is likely rearing habitat and a migratory corridor for all five species of Pacific salmon to complete their life cycles. Moreover, the lagoon habitat contains brackish water essential for smoltification of Pacific salmon. Juvenile salmon typically begin their smolting migrations in the brackish water lagoon areas during spring when the water temperatures are within the optimal zones you noted in your Draft Reclamation Plan. Such transition zones are essential for the survival of juvenile Pacific salmon migrating from freshwater to saltwater habitats.

The Council and our agency do not designate EFH (text and maps) for forage fish and other ecosystem component species included in the FMP for Groundfish of the Bering Sea and Aleutian Islands (BSAI), Salmon FMP, or the FMP for BSAI King and Tanner Crabs; however, forage fish are prey resources for several managed species and are thus considered an EFH attribute and should be included in the EFH assessment.

In our September 14, 2020 letter, we stated that the proposed federal action to permit these mining activities has the potential for significant environmental impacts, and therefore requested USACE consider preparation of an Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA). The required EFH assessment can be combined with other federal consultations or environmental review processes, such as NEPA, to streamline the consultation process. However, if an EFH assessment is contained in another document, it must be clearly identified. Please provide an update regarding the NEPA process, the preparation of an EIS, timelines for review, and your intention for incorporating the EFH assessment within that process.

Proposed Action

1. We recommend revising the EFH assessment to include an accurate description of the project timeline for each phase of the project and the overlap of any studies or surveys for the five year lifetime of the project. The dates provided in the EFH assessment for seasonal exploration drilling and the case study are not consistently identified. For example, provide a schedule with accurate time frames to depict how project actions and studies intersect (e.g., coring/exploration, test mine, monitoring, environmental DNA (eDNA), fish/habitat reclamation study, and full-scale mining).
2. We recommend clarifying the lifetime footprint of the proposed project, including an assessment of the total acres affected.

Identifying EFH and Potential Impacts to EFH and Other Living Marine Resources

3. We recommend accurately identifying the scope and scale of effects to fish and EFH that may result from the proposed action, including site-specific and habitat-wide impacts, as well as individual and cumulative effects.
4. We recommend modifying the EFH assessment to elaborate on the presence or absence of adult salmon, identify salmon species that use the project area for migration (e.g., smolts), and assess the project(s) impacts to the habitat and fish.
5. The current EFH assessment states “the area of actual dredging is not reported to be valuable habitat for any life stage of any fish species”. This conclusion is not supported by the information available. We recommend you either include evidence supporting this statement or revise the analysis based on the information available.
6. We support the inclusion of eDNA surveys of the project area and adjacent nearshore areas. Model maps are helpful for big picture presence and absence, however those maps are not ideal for a specific location. Accurate nearshore information, such as surveys and seasonal eDNA, provides crucial site habitat utilization by species, including prey species.
7. eDNA can be useful for confirming the presence or absence of fish or crab species using the habitat to complete their life cycles. Your EFH assessment described such surveys for red king crab only. We recommend expanding your eDNA baseline sampling to investigate other species, including salmonids within the lagoon. We recommend this study be conducted starting the summer of 2021 and through the project lifetime.

8. We recommend seeking Traditional Ecological Knowledge to also help determine what marine and freshwater resources are used in the area surrounding the proposed project. This is particularly important in a remote area without baseline scientific information on habitat and species distribution and abundance.
9. We recommend including an assessment of potential impacts to EFH from the proposed construction of dikes and from gravel and/or sand filled geotextile tubes, including a description of how they will be constructed and removed.
10. The EFH assessment identifies potential impacts from port and road construction and pipeline installation. Those aspects of the project were not clearly described in the EFH assessment. We recommend the use of the *Impacts to Essential Fish Habitat from Non-fishing Activities in Alaska* (Limpinsel 2017), with specific attention to the following sections:
 - 1.1 Background on Essential Fish Habitat
 - 4.4.1 Mining
 - 4.4.2 Mineral Mining
 - 5.4.1 Dredging
 - 5.4.2 Material Disposal and Filling Activities
 - 5.4.3 Disposal of Dredged Material

Reclamation and Mitigation

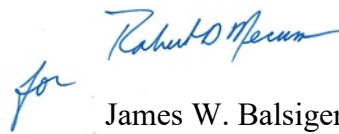
11. We support the proposal for reclamation and mitigation; however, the success of mitigation is highly uncertain. Please provide data and resources to support assertions about effectiveness and timeline for reclamation.
12. Please provide further details about the ‘refugia’ habitat, including details on how the refugia pools will be monitored for effectiveness.
13. We agree that monitoring programs should be established, including observing potential changes to habitat or habitat usage. The EFH assessment mentions monitoring programs for ecological memory, fish, submerged aquatic vegetation, wave climate, and shoreline; however, no details are provided. We recommend modifying the EFH assessment to include outlined plans for these and any other planned monitoring actions.

Conclusion

We concur with your determination that this project would adversely affect EFH in the long term. To that end, recommendations for the revised EFH assessment are detailed above to better account for impacts to EFH and improve the consultation process. During the consultation process, we maintain three priorities: avoid, minimize, or compensate for the proposed adverse effects to EFH and meet our agency goals for habitat conservation. We seek to avoid impacts to the extent practicable, including the assessment of project alternatives. To the extent that impacts to EFH cannot be avoided, we seek to minimize the impact by altering the project design. If project related activities in and near the sound and rivers are determined to be necessary, we may provide conservation recommendations to minimize the direct, indirect and cumulative effects. If deemed necessary through the consultation process, we may also recommend compensatory mitigation to address those impacts that cannot be avoided or directly mitigated.

The level of detail in an EFH assessment should be commensurate with the complexity and magnitude of the potential adverse effects of the action (50 CFR 600.920(e)(2)). Following our receipt of a completed EFH assessment that includes the information outlined above, our review and conservation recommendations required under 50 CFR 600.925 will build on our involvement in reviewing this project and providing recommendations. Therefore, we propose an expanded EFH consultation process to maximize the coordination opportunities. Once we receive a more detailed EFH assessment, with clarification from IPOP, we will respond within 60 days (50 CFR 600.920(i)). Please contact Seanbob Kelly at seanbob.kelly@noaa.gov or Stefanie Coxé at stefanie.coxe@noaa.gov with questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "James W. Balsiger", with a small "for" written to the left.

James W. Balsiger
Administrator, Alaska Region

CC:

Betsy McCracken, EPA, mccracken.betsy@epa.gov
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References

Limpinsel, D. E., Eagleton, M. P., and Hanson, J. L., 2017. Impacts to Essential Fish Habitat from Non-Fishing Activities in Alaska. EFH 5 Year Review: 2010 through 2015. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-F/AKR-14, 229p.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

September 24, 2018

Col. Phillip Borders
U.S. Army Corps of Engineers
P.O. Box 6898
JBER, Alaska, 99506-0898

Re: POA-2018-00123, Bonanza Channel/Safety Sound

Dear Col. Borders:

On September 18, 2018, the National Marine Fisheries Service (NMFS) Habitat Conservation Division (HCD) received a General Permit Agency Coordination (GPAC) letter from the U.S. Army Corps of Engineers (USACE) for activities associated with Nationwide Permits (NWP) 6, 18, and 19 (POA-2018-00123). These three NWPs apply to Survey Activities, Minor Discharges, and Minor Dredging, respectively.

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires federal agencies to consult with NMFS on any action that may adversely affect Essential Fish Habitat EFH [50 CFR 600.920 (a)(1)]. The USACE is receiving agency comments on the proposed action until September 28, 2018, unless additional time is requested. HCD also reviewed the Draft EFH Assessment provided by the applicant in April 2018, but the project has been substantially scaled down since preparation of that document, and no other EFH Assessments were received. Thus, based on the information provided by USACE during early coordination from April to August 2018, and described in the GPAC, we offer the following comments pursuant to the MSA.

Proposed Action

IPOP, LLC proposes an exploration program consisting of GeoProbe drilling and environmental baseline studies in mining claims 30, 31, and 32, located in Safety Sound, near Nome, Alaska. A pontoon boat will be used to conduct soil sample borings at up to 13 locations within a two week period, weather permitting. Environmental baseline studies will include bathymetric surveys to record water depths on a 100 by 100 foot grid, and eelgrass delineation, if present.

IPOP, LLC also proposes to operate a scale model dredge to collect and monitor water quality data during operations; this will also allow assessment of potential environmental impacts of the larger scale operation, which has not yet been permitted. The proposed project would result in minor dredging and discharge of approximately 25 cubic yards of fill below ordinary high water, into approximately one-tenth acre within Safety Sound. Exploratory dredging will occur in up to 5 locations using a Keene dial-engine mini 6-inch dredge.

HCD understands that all project activities at this stage will be conducted in brackish waters of Safety Sound and Bonanza Channel between the existing roadway and mainland; no activities are planned for nearshore or offshore marine waters.



Essential Fish Habitat

The Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs (BSAI Crab FMP) identifies EFH for Norton Sound red king crab (*Paralithodes camtschaticus*) in marine waters near the proposed project site. This EFH does not overlap with the project as currently proposed, however HCD recommends that USACE considers the importance of this fishery when analyzing effects of the anticipated future large scale project.

Additionally, EFH for all five species of Pacific salmon (*Oncorhynchus* spp.) are identified in the FMP for the Salmon Fisheries in the EEZ off Alaska. Saffron cod (*Eleginus gracilis*) EFH is not designated in the project area, but anecdotal accounts of saffron cod presence were mentioned several times during early agency scoping.

EFH Requirements

The USACE did not make a determination on potential adverse effects of the proposed action on EFH in the GPAC. During our review, HCD has determined that the proposed action may adversely affect EFH. Adverse effects would be minimal and temporary because they would be localized to the area and time period associated with the exploratory survey activities covered under NWP 6, 18, and 19. Further, the proposed action will occur in water depths of less than 30 feet, which is the North Pacific Fishery Management Council and HCD's joint recommendation to the USACE for mining activities.

After review, HCD determined that an EFH Assessment is not necessary at this time. However, in anticipation of larger scale activities planned for this project area in the future, HCD is providing the following information to USACE, in the event an Individual Permit application and resultant EFH consultation occur:

- Any action that *may adversely affect* EFH requires a clearly referenced EFH Assessment in either a separate document or a support document (50 CFR Part 600.920(e)). The mandatory contents of an EFH Assessment should be labelled accordingly and include: (i) a description of the action, (ii) an analysis of the potential adverse effects of the action on EFH and the managed species, (iii) the Federal agency's conclusions regarding the effects of the action on EFH, and (iv) proposed mitigation, if applicable.
- Please note an EFH Assessment is to be completed by the action agency, if needed. Once an EFH Assessment is received by NMFS, HCD will then review and offer EFH Conservation Recommendations, if applicable. We recommend referencing the recent publication, [*Impacts to EFH from Non-fishing Activities in Alaska*](#), when developing an EFH Assessment.

EFH Conservation Recommendations

IPOP, LLC has included measures to mitigate impacts to EFH, including adherence to best management practices and relevant regulatory permitting requirements. HCD recognizes the following conservation measures put forth in the GPAC:

- Avoiding any sensitive habitats or eelgrass beds during drilling or dredging activities, including a half mile;
- Adhering to seasonal restrictions to minimize impacts to aquatic resources and subsistence activities;
- Using a drill with a footprint of less than one foot diameter;
- Minimizing the number of drill sites to accomplish the project;

- Conducting work in dynamic estuarine waters, as opposed to directly within wetlands or marine habitat;
- Limiting dredged material to a 10-foot diameter and 5-foot depth area; and
- Adhering to stipulations set forth in Alaska Department of Fish and Game Fish Habitat Permit FH-18-III-0167

As stated previously, after considering the EFH information provided during early coordination and within the GPAC, HCD does not require a separate EFH Assessment for the project as currently proposed. However, HCD would like to be informed of any findings from the exploration program that have relevance to the following—

- Results from environmental baseline studies, including bathymetric, eelgrass, and water quality information.
- Any observations of red king crab or saffron cod, and approximate locations of those observations if possible

NMFS HCD understands that IPOP, LLC is only proposing to conduct exploration activities and environmental baseline data collection at this time under the USACE NWP process. Should the proposed action change significantly, HCD wishes to be informed of any such changes in order to reassess our response. Further, HCD is willing to provide additional resources or guidance regarding EFH resources, requirements, or process at any time.

HCD appreciates the early coordination efforts and clear communication offered by USACE throughout this project. If you have any questions regarding this project, please contact Samantha Simpson at samantha.simpson@noaa.gov or (907) 271-1301.

Sincerely,



James W. Balsiger, Ph.D.
Administrator, Alaska Region

cc: Leslie Tose, USACE Project Manager, Leslie.W.Tose@usace.army.mil

G:USACE EFH Bonanza Channel Safety Sound POA 2018-00123 ss 9-24-2018



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

September 14, 2020

Colonel Damon Delarosa
U.S. Army Corps of Engineers
P.O. Box 6898
JBER, Alaska, 99506-0898

Re: Public Notice of Application for Permit POA-2018-00123, Bonanza Channel/Safety Sound

Dear Colonel Delarosa:

The National Marine Fisheries Service (NMFS) has reviewed IPOP's application to the U.S. Army Corps of Engineers (USACE) to produce gold from their mining claims in the Bonanza Channel/Safety Sound area near Nome, Alaska. IPOP plans to discharge 4,973,992 cubic yards of material into 172.7 acres of waters of the U.S. to construct and maintain an access channel, dredge disposal areas, mining channel, and a mine camp and staging area. Equipment to be used includes a single engine dredge vessel with a 36" diameter cutterhead, a 10" diameter dredge nozzle, two small tender boats, and a processing barge.

Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires federal agencies to consult with NMFS on all actions that may adversely affect Essential Fish Habitat (EFH). NMFS is required to make EFH Conservation Recommendations, which may include measures to avoid, minimize, mitigate, or otherwise offset adverse effects. This consultation is officially initiated by the action agency with the submission of an EFH Assessment to NMFS.

We have reviewed the Draft EFH Assessment included with IPOP's application and provided preliminary early coordination comments to USACE on June 16, 2020. We have also raised EFH concerns during interagency teleconferences initiated by USACE and correspondence with USACE staff. The Draft EFH Assessment is not complete or accurate in its description of the project, analysis of impacts, or identification of EFH and Federally managed species impacted. To initiate EFH consultation for these actions, we request a revised EFH Assessment that meets the requirements in Federal regulations (50 CFR 600.920(e)).

Further, we are concerned that this proposed Federal action to permit these mining activities has the potential for significant environmental impacts, and therefore request that USACE consider preparing an Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA).

As part of early coordination, we are providing comments to assist USACE and the applicant in preparing an EFH Assessment.



1. EFH Assessment

Any action that may adversely affect EFH requires a clearly referenced EFH Assessment in either a separate document or a support document (50 CFR 600.920(e)). The Federal action agency completes the EFH Assessment and submits it to NMFS. Once an EFH Assessment is received by NMFS, we will then review it and offer EFH Conservation Recommendations, if applicable.

The Draft EFH Assessment (Exhibit 3) is from 2018 and analyzes suction dredge activity, proposing to remove approximately 484,000 cubic yards of unconsolidated sediments per year from the nearshore. However, the current proposed activity is for suction dredging activities to remove approximately 900,000 cubic yards per year. Thus, the analysis provided in the Draft EFH Assessment is for an action that is very different from the currently proposed action. The species list in the Draft EFH Assessment is also not accurate, and the EFH maps are obsolete. Additionally, the lifetime of the project is described as 5 years in some parts of the application, and 10 years in other parts. In order to accurately assess the project's potential impacts on marine resources, we request the applicant clarify the anticipated lifetime of the project. It is not possible to assess the effects of the project without an accurate description of the size, scope, or duration of the action. We provide detailed suggestions to improve the EFH Assessment below.

The Draft EFH Assessment does not meet the requirements of an EFH Assessment (50 CFR 600.920(e)). The level of detail in an EFH Assessment should be commensurate with the complexity and magnitude of the potential adverse effects of the action.

1.1 Mandatory Contents of an EFH Assessment

The mandatory contents of an EFH Assessment should be labelled accordingly and include:

- A. A description of the action;
- B. An analysis of the potential adverse effects of the action on EFH and the managed species;
 - a. Note: in addition to EFH maps and ADF&G's Anadromous Waters Catalogue, text Descriptions from Fishery Management Plans should be used in EFH analyses (link provided in Section 1.2)
- C. the Federal agency's conclusions regarding the effects of the action on EFH;
 - a. Note: The assessment of impacts to EFH needs to include the nearshore areas adjacent to the impact area.
- D. Proposed mitigation, if applicable.

1.2 EFH References

- Essential Fish Habitat - Alaska Fact Sheet
 - provided to USACE and applicant
- Impacts to EFH from Non-fishing Activities in Alaska
 - <https://repository.library.noaa.gov/view/noaa/17256>
- Frequently Asked Questions: Essential Fish Habitat in Alaska
 - <https://www.fisheries.noaa.gov/alaska/habitat-conservation/frequently-asked-questions-essential-fish-habitat-alaska>
- NOAA National EFH Mapper
 - <https://www.habitat.noaa.gov/protection/efh/efhmapper/>

- NOAA Alaska EFH Mapper
 - <https://www.fisheries.noaa.gov/resource/map/alaska-essential-fish-habitat-efh-mapper>
- Alaska Anadromous Waters Catalog
 - <https://www.adfg.alaska.gov/sf/SARR/AWC/index.cfm?ADFG=main.interactive>
- Text Descriptions in NPFMC's Fishery Management Plans (FMPs) - under 'Fisheries'
 - <https://www.npfmc.org/>

2. Resources Affected - More Information Needed

NMFS has preliminarily determined the proposed mining activities have the potential to adversely affect EFH and are likely to have substantial adverse effects on Federally managed marine resources. The EFH Assessment should, at a minimum, analyze impacts, including but not limited, to:

- A. Nearshore settling red king crab and potential for impacts such as entrainment of juvenile fish and crab in mining gears.
- B. Significant alterations, loss, or disruption of submerged aquatic vegetation (SAV) due to the deposition of dredged material, disruption of plants, and resuspension of fine sediments.
- C. Disruption of estuarine and riverine migratory corridors used by juvenile and adult salmon.
- D. Disruption or removal of prey resources, including herring, important to federally managed fish species and other marine resources, such as marine mammals (NOAA Fisheries 2007).
 - a. More information is available on prey resources at <http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareanortonsound.main>

2.1 Juvenile Crab

The draft EFH Assessment did not include an analysis of potential impacts to red king crab. Red king crab are found as juvenile settling crab nearshore and as adults, in spawning aggregations, offshore in Norton Sound marine waters. The Norton Sound stock of red king crab is thought to be a range extension of the Bristol Bay red king crab. (Dr. Robert Foy, 2010, personal communication, month unknown). In early spring (as ice retreats), female red king crabs release thousands of crab larvae. Larvae remain pelagic and drift with ocean and wind-driven currents. Red king crab larvae settle as tiny crab enstars along the nearshore of Norton Sound (driven there from net northerly currents). Red king crabs are associated with benthic sediments composed of silt, sand, sandy mud, muddy sand, and gravels. Juvenile red king crabs prefer high-relief habitats and nearshore areas with extensive biogenic assemblages. Additionally, sediment sampling is sparse in Norton Sound and are locally variable in northern areas along the coast (NPFMC 2011). Eventually, red king crab molt several times (a sensitive time for crab) and grow to become adult crab and migrate into deeper waters (Jewett 1999).

To assess impacts to red king crab, we request the EFH Assessment:

- Analyze any potential impacts to nearshore crab habitat adjacent to the project area.
- Assess the presence or absence of red king crab in the nearshore with eDNA sampling.
- Survey project area and adjacent nearshore crab habitat for baseline abundance as well as periodically during and after the project.

2.2 Submerged Aquatic Vegetation

‘Exhibit 2 - Eelgrass Study’ from IPOP’s application describes drone footage from 2018 and 2019 of the project area that *“leaves no doubt that these areas have minimal to no vegetation, being extremely shallow.”* However, the report ‘Bonanza Channel Bathymetric Mapping and Seagrass Study’ from August 13, 2020 states that *“the submerged aquatic vegetation community is robust in the study area.”* According to that study, approximately 86.2 percent of the study area contains three dominant species of SAV, including the areas where the applicant intends to dispose of dredged material - in the mining channel as well as around the access channel in the middle of Bonanza Channel. The applicant believes that their plan to mine with concurrent reclamation would *“establish an environment where wild eelgrass beds may take root.”* We are unaware of evidence to support this assertion.

SAV provides key EFH attributes of food, shelter, oxygen, and protection for spawning and rearing. These important ecological functions are especially vulnerable to coastal development and water quality degradation, and are difficult to replace. In general, we recommend avoiding disposing of dredged material in wetlands, SAV, and other special aquatic sites whenever possible.

To assess impacts to SAV, we request the EFH Assessment:

- Describe how they expect the overall species distribution of SAV to change throughout the life of the project.
- Provide science-based evidence that the applicant’s proposed mining and reclamation process will allow SAV to *“take root.”*
- Incorporate plans for annual monitoring and mapping throughout the life of the project to compare with pre-mining conditions. This includes consistent, scientific SAV surveys that can be repeated annually for comparable data.

2.3 Salmon Migratory Channels

The application states that *“there will be no dredging in, or impacts on, anadromous streams by the proposed mining operation. There are no anadromous fish spawning beds in the Bonanza Channel.”* However, the State of Alaska Anadromous Waters Catalog (AWC) shows anadromous points for coho presence and chum and pink salmon spawning in the project area in Bonanza Channel and upstream in Bonanza River; chum, coho, and pink spawning and coho presence and rearing in Solomon River; and presence of all 5 species of Pacific salmon, including chum and pink spawning, within Safety Sound. The application states: *“There is no evidence that turbidity events in the estuary would form a barrier to the migration of anadromous fish in and out of the River or otherwise adversely affect them, and the scope of operations will leave large undisturbed corridors adequate for passage of salmon and resident fish to bypass the operation, undisturbed.”* However, NMFS asserts that salmon migration is likely to be severely impeded by the applicant’s mining and dredged material disposal plan: Juveniles that usually migrate close to shore are likely to be entrained in mining equipment or otherwise impeded by activity (Wenger et. al 2017), and adults migrating between Safety Sound and Bonanza Channel (returning to natal spawning areas) could be blocked from migration by dredged material disposal near the middle of Bonanza Channel, as well as noise and activity from the mining operation.

The application also states that “*Alaska’s Department of Fish & Game acknowledges a dearth of scientific studies or data concerning the effects of estuarine or marine turbidity on salmonid species and whether or not turbidity would interfere with the migration of anadromous fish (Green, 2019). IPOP notes that even if turbidity did periodically impair migration, suction dredging enhances the food supply and water oxygenation.*” Regardless of increased turbidity’s effect on salmon migration in freshwater streams, NMFS notes that increased turbidity has the potential to impede physiological processes (e.g., photosynthesis, respiration) to aquatic organisms via increased turbidity and sedimentation (Arruda et al. 1983, Cloern 1987, Dennison 1987, Barr 1993, Benfield and Minello 1996, Nightingale and Simenstad 2001a), thus having adverse impacts on salmon EFH.

We request the EFH Assessment:

- Assess the impacts of the proposed mining activities on salmon migration.
- Provide a plan for nearshore fish passage that could accommodate for migration between Safety Sound and Bonanza Channel by adult and juvenile salmonids.
- Provide evidence that supports the applicant’s assertion that “*suction dredging enhances food supply and water oxygenation.*”
- Provide evidence and/or or scientific case studies that relate to the project area for the proposed efficacy of the applicant’s turbidity curtain. The information provided is a case study from Maine and seems to be part of a sales brochure.

2.4 Disruption or removal of prey resources

Prey species, such as herring and invertebrates, are critical for EFH species and marine mammals throughout their life history. The physical impacts of the proposed project may result in:

- A. The removal of substrates that serve as habitat for fish and invertebrates
- B. Habitat creation or conversion in less productive or uninhabitable sites, such as anoxic holes or silt bottom
- C. The burial of productive habitats, such as in nearshore disposal sites
- D. The release of harmful or toxic materials either in association with actual mining or in connection with machinery and materials used for mining
- E. The creation of harmful turbidity levels
- F. Adverse modification of hydrologic conditions so as to cause erosion of desirable habitats.
- G. Alteration of behavior of marine organisms as a result of the disposal of mine tailings in or adjacent to the nearshore.

We request the EFH Assessment:

- Assess the impacts of the proposed mining activities on prey species with EFH designated in, or adjacent to, the project area.

3. Impacts from mining operations

Mining and mineral extraction activities take many forms, such as commercial and recreational suction dredging; placer, open pit, and surface mining; and contour operations. The process for mineral extraction involves exploration, mine development, mining (extraction), processing, and reclamation. Each step of this process requires a plan that includes an analysis of potential and

likely impacts: tailings and reclamation, dredge material and sedimentation processing, the construction of a boat launch and support facilities, and oil spill prevention, and hazardous materials control plan. Without an adequate analysis of potential adverse impacts to EFH, it is difficult to determine if a mining operation will alter the channel morphology, hydraulics, lateral migration, or natural channel meanders; increase the channel incision and bed degradation; disrupt the pre-existing balance of suspended sediment transport and turbidity; cause direct impacts to fish spawning, nesting habitats, and migrations; disrupt or remove prey resources; simplify in-channel fluvial processes and deposition; alter surface and groundwater regimes and hydrogeomorphic and hyporheic processes; or cause destruction of the riparian or estuary zones during extraction/construction operations.

We request the EFH Assessment:

- analyze potential impacts associated with the extraction of material from within or adjacent to the action areas.

3.1 Tailings/ Reclamation Plan

The Applicant's plan is to mine "*with concurrent reclamation, re-establishing the estuary as close to the original pre-mining extent and depth as possible, with temporary dredge material disposal sites reclaimed by the end of the project.*" Tailings from the dredging operation will be re-deposited into the bottom of the estuary.

To assess impacts of the tailings/reclamation plan, we request the EFH Assessment:

- State how long dredged material will remain in 'temporary' material disposal sites.
- Provide science-based evidence and/or precedence that an estuary can be re-established to pre-mining conditions with this type of mining and reclamation process.
 - Consider SAV and other benthic organisms such as juvenile crab and prey species.
- Develop a thorough reclamation plan that describes how the storage and reclamation will affect the benthic environment.

3.2 Dredged Material / Sedimentation Plan

Material disposal and filling activities can directly remove important habitat, alter the habitat surrounding the developed area, and generally have adverse effects on benthic and water column habitats. The discharge of dredged materials or the use of fill material in aquatic habitats can result in the covering or smothering of existing submerged substrates, loss of habitat function, alteration of water quality parameters (i.e., temperature, oxygen concentration, turbidity, and flow), and adverse effects on benthic communities (Limpinsel et al. 2017). The applicant's proposed plan discharges dredged material into an area with SAV and would significantly alter the bathymetry and flow regime of Bonanza Channel.

To assess impacts of dredged materials and sedimentation, we request the EFH Assessment:

- Assess all options, including upland disposal sites, for the disposal of dredged materials and select disposal sites that minimize adverse effects to EFH.
- Conduct a thorough analysis on how the dredged material disposal site in the middle of Bonanza Channel will affect:
 - Bathymetry and flow regimes

- Benthic environment
 - Salinity - consider saltwater intrusion
- Include a plan to test sediment compatibility for open-water disposal per Environmental Protection Agency and USACE requirements for inshore and offshore, unconfined disposal.
- Include a plan to ensure that disposal sites are properly managed (e.g., disposal site marking buoys, inspectors, the use of sediment capping and dredge sequencing) and monitored (e.g., chemical and toxicity testing, benthic recovery) to minimize impacts associated with dredged material.
- Acquire and maintain disposal sites for the entire project life when long-term maintenance dredging is anticipated.
- Encourage beneficial uses of dredged materials. Consider using dredged material for beach replenishment and construction. When dredging material is placed in open water, consider the possibilities for enhancing marine habitat.
- Develop a thorough erosion control plan.
- Develop models and descriptions for size and duration of sediment plumes caused by dredging and how effective the applicant expects silt curtains to be in reducing plumes.
- Describe long-term impacts on oxygen and other physical characteristics within estuaries.
- Develop a plan for catastrophic failure of silt curtains as a result of storm, storm surge, or other event.

3.3 Boat Launch / Support Facilities

Some maps included in the application include a location for ‘Camp and Boat Launch’ near an offshore upland berm, but no detailed plans are included for construction of a boat launch. The EFH Assessment should include an analysis of the impacts of this facility on EFH.

To assess impacts of the boat launch facility, we request the EFH Assessment:

- Consider use of the boat ramp at Solomon River (included in Action Alternative 2) over construction of a new boat launch facility.
- Provide detailed construction plans for any boat launch facility or other facilities the applicant plans to build.

3.4 Oil Spill Prevention and Response/ Hazardous Materials Contingency Plans

The application does not consider mitigation measures such as an oil spill response plan or hazardous material contingency plan. The EFH Assessment must include an analysis of the potential for oil spills or hazardous material spills and the impacts of a spill on EFH.

To minimize the adverse impacts from oil spills or hazardous material spills, we request the EFH Assessment consider the following measures:

- Develop spill responses strategies for potential oil spills and accidental discharges of metal concentrates or any other mining-related materials in the project area.
- Ensure operators are familiar with updated Alaska’s Geographical Response Strategies (GRSs)- <https://dec.alaska.gov/spar/ppr/response-resources/grs/nw-arctic/> to reduce and minimize risk of an oil and hazardous materials spill.
- Ensure mining facilities are designed to include practical measures for reducing, containing, and cleaning up hazardous material spills.


- Stage oil and hazardous spill response equipment at adequate capacities to respond based on projected volumes of materials stored or handled in the project area.
- Monitor turbidity during dredging operations and cease operations if turbidity exceeds predetermined threshold levels.

4. Conclusion

NMFS looks forward to reviewing the environmental analyses prepared by IPOP and USACE. NMFS is concerned about moving forward without adequate analysis of the impacts of the proposed mining activities on the marine resources in the action area, and we request USACE incorporate these and our previously submitted early coordination comments into the EFH Assessment.

If you have any questions regarding our comments, please contact Lydia Ames at lydia.ames@noaa.gov or (907) 271-5002 or Seanbob Kelly at seanbob.kelly@noaa.gov or (907) 271-5195.

Sincerely,


for James W. Balsiger
Administrator, Alaska Region

CC:

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Charleen Buncic, USFWS, charleen_buncic@fws.gov

Marcia Heer, EPA, heer.marcia@epa.gov

Roy Ashenfelter, Kawerak, rashenfelter@kawerak.org

Liz Johnson, Village of Solomon, liz@villageofsolomon.org

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
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P.O. Box 21668
Juneau, Alaska 99802-1668

August 13, 2021

Colonel Damon Delarosa
U.S. Army Corps of Engineers
P.O. Box 6898
JBER, Alaska, 99506-0898

Re: General Permit Agency Coordination for Nationwide Permit #6 – Survey Activities; POA-2018-00123, Safety Sound/Bonanza Channel; APMA 2875

Dear Colonel Delarosa:

We have reviewed the proposed permit modification by IPOP, LLC to modify the previously authorized surveying activities under the U.S. Army Corps of Engineers' (USACE) Nationwide Permit #6 (issued May 3, 2021) that require new verification. The primary changes include increasing the core diameter and conducting work year-round. The stated purpose of the changes are to further confirm the extent of the mineral resources in the claim area to inform operations sequencing and minimize impacts to special aquatic resources. The proposed modifications will result in effects not previously assessed. The USACE has not provided NMFS a complete essential fish habitat (EFH) assessment for the exploratory drilling, case study mining, full-scale mining, and reclamation. Based on our review, we offer the following comments.

Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and Fish and Wildlife Coordination Act requires federal agencies to consult with us on all actions that may adversely affect EFH and other aquatic resources. The EFH consultation process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation process. In support of the consultation process, we previously provided comments during early coordination on this action on September 24, 2018, September 23, 2019, September 19, 2020, and November 20th 2020. We received an incomplete draft EFH assessment dated February 2021, provided to us in April 2021. We provided comments and requested a revised EFH assessment in our May 19, 2021 letter.

We requested additional information from the project lead as recently as July 29, 2021, for data regarding the number of core samples taken since 2018 and the presence of potential contaminants. As noted in the USACE's May 31, 2019 letter, mercury or lead remediation could potentially be associated with the project; however, the application to modify the existing permit makes no mention of these contaminants. We have not received any additional information from the USACE regarding contaminants or remediation measures to support the EFH consultation process and evaluate potential adverse impacts to federally managed fish and designated EFH. A complete EFH assessment or a completed environmental analysis required by the National Environmental Policy Act (NEPA) has not been provided to date.

We offer the following comments and recommendations on the proposed project modifications pursuant to the above referenced regulatory process.



Overview

The proposed changes to the exploration permit represents another incremental increase in the scope of exploration in both time and space. The proposed expansion of exploration would include a total of 502 core samples with up to a 4.5 inch diameter core to a depth of up to 31 feet or refusal. The total impacts from the survey activities would be up to 55.43 square feet of wetlands waters of the U.S. This is likely an underestimation of total impacts because it does not include impacts to the shallow wetlands caused by vessel operation including anchor drag, chain sweep and propeller disturbance. Moreover, the proposed project modification increases the operational timing window to year round activity encompassing 12-24 hours per day for up to six 30 day work periods. Up to six cores would be made daily in cluster sample sites that would not exceed 10 feet in diameter. Some of the project description revisions are included below along with an explanation of how the change impacts EFH (see Table 1).

Table 1. Proposed increases to the project and potential impacts to EFH.

Previous project descriptions	7/19/2021 Proposed Action	Impact to EFH
2-4 cores per day during a 14 day period of time	6 cores per day for 6 @ 30-day work windows	Increased substrate disturbance, noise and turbidity.
175 core samples	502 core samples	Increased noise, footprint and turbidity
2.25 inch diameter by 4 feet long sample tube	4.5 inch diameter drill, to 31 feet or resistance	Increased footprint and turbidity
Daylight activity window	12-24 hour activity window	Increased noise and turbidity
Operating months: during ice-bound	Year-round	Spring, summer, fall impacts to salmon migration
13.9 square feet impacted wetland	55.43 square feet impacted wetland	Increased footprint

These changes represent a significant expansion in exploring activities over the previously reviewed action. Incremental changes to the exploratory survey project over time may result in cumulative adverse effects to EFH not previously assessed. We note that the cumulative impacts of all the exploratory coring since 2018 has not been evaluated or considered.

We are currently reviewing a Notice of Application for State Water Quality Certification from the Alaska Department of Environmental Conservation. The stated purpose is to extract gold, including Bonanza Channel case study, from mining claims leased by IPOP. This stated purpose directly contradicts the purpose provided to the USACE in the application for permit modification (i.e., to explore for potential gold mining). Without a concise project description, purpose, and timeline of activities, it is difficult to conduct the statutory consultation process for accessing potential impacts to EFH.

We are eager to review both a completed EFH assessment and a NEPA analysis for this project to assess the cumulative impacts of the exploratory drilling, case study mining, full-scale mining, and reclamation.

Essential Fish Habitat

The General Permit Agency Coordination (GPAC) for Nationwide Permit #6 states that information regarding EFH is being gathered and a determination has not yet been made about the potential adverse effects of the expanded exploration activities on EFH. Similarly, the USACE did not make a determination of potential adverse effects to EFH in the 2018 GPAC. Based on our review of the permit modification application, the proposed action may adversely affect EFH; however the adverse effects may be temporary and localized.

In our September 24, 2018 letter, conservation recommendations for the GPAC included “adhering to seasonal restrictions to minimize impacts to aquatic resources and subsistence activities”. The proposed increases to the project are likely to affect EFH and federally managed fish (Table 1). Specifically, the proposed in-water activity will occur during ice-free months at local anadromous waters during Pacific salmon migrations. The primary concern is increased turbidity and the potential for contamination of EFH during the proposed expanded exploration activities. The increased turbidity may affect the migration behavior of adult salmon as they approach their natal waters or smolting migrations as juvenile salmon use the brackish wetlands to transition to the marine environment.

EFH Conservation Recommendations

We acknowledge that you are currently gathering information regarding the potential impacts on EFH and federally managed species, and are in the process of analyzing effects to EFH. We look forward to receiving the EFH assessment pursuant to the EFH regulations at 50 CFR 600.920(e). Upon receipt of your EFH assessment, we will provide EFH conservation recommendations in accordance with MSA Section 305(b)(4)(A). Interim to your EFH assessment, we offer the following measures for avoiding direct and cumulative project related impacts.

1. Monitoring turbidity during operations and ceasing operations if turbidity exceeds predetermined threshold levels is an effective operations method for mitigating impacts on migratory fish.
2. Silt curtains are an effective method to minimize turbidity related impacts to EFH from exploration and other sediment disturbing activities.



We understand that IPOP, LLC is only proposing to conduct exploration activities under the USACE Nation Wide Permit process. This proposed project purpose is inconsistent with the stated project purpose for the state’s permitting action. The project purpose should be clarified and consistent among the regulatory agencies.

We await your EFH assessment. Incorporating mitigation measures into that assessment will support the overall consultation process. Please also note that a distinct supplemental EFH consultation must be reinitiated pursuant to 50 CFR 600.920(1) if new information becomes

available or the project is revised in such a manner that affects the basis for the above EFH conservation recommendations.

If you have any questions regarding this project, please contact Seanbob Kelly, seanbob.kelly@noaa.gov, or Stefanie Coxe, stefanie.coxe@noaa.gov.

Sincerely,

James W. Balsiger
Administrator, Alaska Region

CC:

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
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P.O. Box 21668
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August 19, 2021

Commissioner Jason W. Brune
Department of Environmental Conservation
P.O. Box 111800
Juneau, Alaska 99811

Re: Application for State Water Quality Certification - POA-2018-00123 - Bonanza
Channel/Safety Sound IPOP LLC - Bonanza Channel Placer Project

Dear Commissioner Brune:

We have reviewed the State of Alaska's Notice of Application for State Water Quality Certification - POA-2018-00123 - Bonanza Channel/Safety Sound IPOP LLC - Bonanza Channel Placer Project. This certification is required for any applicant for a federal license or permit to conduct an activity that might result in a discharge into navigable waters, in accordance with Section 401 of the Clean Water Act (CWA) of 1977 (PL95-217). The applicant also must apply for and obtain certification from the Alaska Department of Environmental Conservation (ADEC) that the discharge will comply with the CWA, the Alaska Water Quality Standards, and other applicable State laws. The applicant, IPOP, LLC's, stated purpose is to extract gold from mining claims leased by IPOP and included within the scope of the project application.

The CWA aims to prevent, reduce, and eliminate pollution in the nation's water in order to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters", as described in CWA section 101(a). Specifically, Section 401 of the CWA provides states and authorized tribes with an important tool to help protect the water quality of federally regulated waters within their borders, in collaboration with federal agencies.

Additionally, the Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 U.S.C. §§1801 et seq.) establishes Essential Fish Habitat (EFH) as a key component in fisheries



management. EFH is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity" (16 U.S.C. 1802(10)). The Habitat Conservation Division works to identify and protect EFH in the waters of the North Pacific and Arctic Oceans off Alaska. The Habitat Conservation Division's responsibilities include protecting EFH, mitigating damage to and enhancing habitat, and restoring habitat affected by development, oil spills, and other human activities. We focus on habitats used by federally protected aquatic species and their prey located offshore, nearshore, in estuaries, and in freshwater areas. Fish and other marine species depend on habitats consisting of the biological and physical properties required for survival and successful reproduction. Alaska's waters are rich in biological resources and are sensitive to water quality changes caused by anthropogenic activities, such as mining.

Overview

Section 305(b) of the MSA and Fish and Wildlife Coordination Act requires federal agencies to consult with us on all actions that may adversely affect EFH and other aquatic resources. The EFH consultation process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation process. In support of the consultation process, we previously provided comments to U.S. Army Corps of Engineers (USACE) during early coordination on this action on September 24, 2018, September 23, 2019, September 19, 2020, November 20th 2020, May 12, 2021, and August 13, 2021. We received an incomplete draft EFH assessment dated February 2021, provided to us in April 2021. The USACE has not provided us with a complete EFH assessment or a completed environmental analysis required by the National Environmental Policy Act (NEPA) for exploratory drilling, case study mining, full-scale mining, and reclamation.

Potential impacts from mining operations

The IPOP, LLC plans to discharge 4,827,161 cubic yards of dredged material into 195 acres of waters of the U.S. over a period of six years to mine for gold by constructing and maintaining an access channel, dredge disposal areas, mining channel, and constructing a man camp and staging area in approximately 1.2 acres of uplands. Equipment to be used includes a single engine dredge vessel with a 36" diameter cutterhead, a 10" diameter dredge nozzle, two small tender boats, and a processing barge. The process for mineral extraction involves exploration, mine development, mining (extraction), processing, and reclamation. Each step of this process requires a plan that includes an analysis of potential and likely impacts: tailings and reclamation, dredge material and sedimentation processing, the construction of a boat launch and support facilities, and oil spill prevention and hazardous materials control plan.

Without an adequate analysis of potential adverse impacts to EFH, it is difficult to determine if a mining operation will alter the heavy metal concentration, channel morphology, hydraulics, lateral migration, or natural channel meanders; increase the channel incision and bed degradation; disrupt the pre-existing balance of suspended sediment transport and turbidity; cause direct impacts to fish spawning, nesting habitats, and migrations; disrupt or remove prey resources; simplify in-channel fluvial processes and deposition; alter surface and groundwater regimes and hydrogeomorphic and hyporheic processes; or cause destruction of the riparian or estuary zones during extraction/construction operations. To date we have not received an analysis of the potential impacts associated with the extraction of material from within or adjacent to the action areas.

Dredged Material / Tailings / Reclamation Plan

The applicant proposes to mine “with concurrent reclamation, re-establishing the estuary as close to the original pre-mining extent and depth as possible, with temporary dredge material disposal sites reclaimed by the end of the project”, as described in the Draft EFH Assessment (2020). Tailings from the dredging operation will be re-deposited into the bottom of the estuary. The applicant has not provided an analysis of the impacts of the tailings/reclamation plan on the physical and chemical properties of EFH.

Material disposal and filling activities can directly remove important habitat, alter the habitat surrounding the developed area, and generally have adverse effects on benthic and water column habitats. The discharge of dredged materials or the use of fill material in aquatic habitats can result in the covering or smothering of existing submerged substrates, loss of habitat function, alteration of water quality parameters (i.e., temperature, oxygen concentration, turbidity, and flow), and adverse effects on benthic communities (Limpinsel et al. 2017). The applicant’s proposed plan discharges dredged material into an area with SAV and would significantly alter the bathymetry and flow regime of Bonanza Channel. The applicant has not provided an analysis of all options, including upland storage sites, for the staging of dredged materials and select sites that minimize adverse effects to EFH.

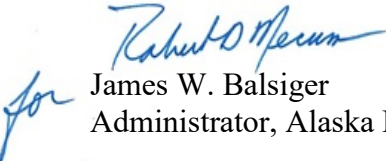
Conclusions

Our review of the proposed project indicates that information necessary to review the proposed project remains incomplete. Water quality is a component of EFH and it’s important to maintain good water quality to support aquatic resources. We recommend the certification for the proposed project be denied until reasonable assurances are made that the project will not result in more than minimal degradation of water quality. We are concerned about permitting a mine of this scale without adequate analysis of the impacts of the proposed mining activities on the

aquatic and marine resources in the action area. We are eager to review both a completed EFH assessment and a NEPA analysis for this project to assess the cumulative impacts of the exploratory drilling, case study mining, full-scale mining, and reclamation activities.

If you have any questions regarding this project, please contact Seanbob Kelly, seanbob.kelly@noaa.gov, or Stefanie Coxé, stefanie.coxe@noaa.gov.

Sincerely,


for James W. Balsiger
Administrator, Alaska Region

CC:

Jason W. Brune, DEC, DEC.Commissioner@alaska.gov

Betsy McCracken, EPA, mccracken.betsy@epa.gov

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Robert Henszey, USFWS, bob_henszey@fws.gov

Amal Ajmi, USFWS, amal_ajmi@fws.gov

Citation:

Limpinsel, D. E., Eagleton, M. P., and Hanson, J. L., 2017. Impacts to Essential Fish Habitat from Non-Fishing Activities in Alaska. EFH 5 Year Review: 2010 through 2015. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-F/AKR-14, 229p.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

October 13, 2021

Colonel Damon Delarosa
U.S. Army Corps of Engineers
P.O. Box 6898
JBER, Alaska, 99506-0898

RE: General Permit Agency Coordination for Nationwide Permit #6 – Survey Activities;
POA-2018-00123, Safety Sound/Bonanza Channel; APMA 2875

Dear Col. Delarosa:

We reviewed your September 15, 2021, request for an essential fish habitat (EFH) consultation regarding IPOP, LLC's proposed permit modification to drill core samples in Bonanza Channel/Safety Sound. The request for consultation included a description of the proposed action and an EFH Assessment. The proposed modification to the previously authorized surveying activities under Nationwide Permit #6 (issued May 3, 2021) now requires new verification from the U.S. Army Corps of Engineers. The proposed project objective is to further confirm the extent of mineral resources in the claim area of a proposed five-year mining channel, inform operations sequencing, and minimize impacts to special aquatic resources. The proposed scope of work includes coring activity 12-24 hours per day for up to six 30-day work periods year-round, drilling up to six cores per day with a maximum of 552 cores. Samples would be extracted with up to a 4.5-inch diameter drill and to a depth of 31 feet or refusal. The total direct impacts to aquatic habitat from survey core activities would be up to 61 square feet (0.00165 acre) with an additional 183 square feet from sediment sloughing. The primary differences between the July 19, 2021, General Permit Agency Coordination (GPAC) authorization and the current request are to conduct work outside of ice-bound conditions and potentially use a larger drill.

Your letter recognizes submerged aquatic vegetation and the known range of Coho salmon, Chum salmon, and Pink salmon within the project area, as well as identifying Dolly Varden, Chinook salmon, Sockeye salmon, and whitefish present in Safety Sound. We recognize your conclusion that the proposed action may result in temporary, minor adverse effects to EFH.

We included two EFH conservation recommendations in our August 13, 2021, letter that responded to a similar GPAC modification. On October 7, 2021, USACE responded to our EFH Conservation Recommendations, consistent with section 305(b)(4)(B) of the MSA. In your response, you explained why silt curtains will not be used as a permit condition: "the impacts of

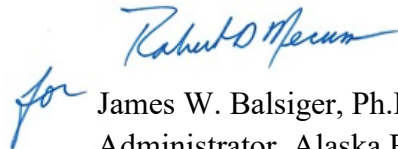


repeatedly removing and installing a large length of silt curtain will have greater effects —albeit also insignificant—than simply taking the core samples and moving the boat.” We thank you for including the EFH conservation recommendation to monitor turbidity in this GPAC.

We support the seven mitigation measures from section iv of your letter and the three stipulations set out in the Alaska Department of Fish and Game’s August 10, 2021, permit approval as ways to avoid or minimize adverse effects on EFH. We have no further EFH conservation recommendations at this time.

We recognize this permit modification is limited to exploratory coring. As we recommended in our August 13, 2021, letter, this project must analyze the cumulative impacts of the exploratory drilling, case study mining, full-scale mining, and reclamation on EFH. We suggest you address the cumulative impacts of past, present, and foreseeable future activities on aquatic habitats by considering them in your review process. Should the project change significantly, please contact Seanbob Kelly at (seanbob.kelly@noaa.gov) or Stefanie Coxe (stefanie.coxe@noaa.gov) to discuss further actions.

Sincerely,


for James W. Balsiger, Ph.D.

Administrator, Alaska Region

CC:

Betsy McCracken, EPA, mccracken.betsy@epa.gov

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Robert Henszey, USFWS, bob_henszey@fws.gov

Amal Ajmi, USFWS, amal_ajmi@fws.gov

Enclosures

1) General Permit Agency Coordination for Nationwide Permit 6 Survey Activities POA-2018-00123, Safety Sound, Bonanza Channel APMA 2875

2) FH21-III-0173_ IPOP_ Bonanza Channel Expl Drilling



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
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August 13, 2021

Colonel Damon Delarosa
U.S. Army Corps of Engineers
P.O. Box 6898
JBER, Alaska, 99506-0898

Re: General Permit Agency Coordination for Nationwide Permit #6 – Survey Activities; POA-2018-00123, Safety Sound/Bonanza Channel; APMA 2875

Dear Colonel Delarosa:

We have reviewed the proposed permit modification by IPOP, LLC to modify the previously authorized surveying activities under the U.S. Army Corps of Engineers' (USACE) Nationwide Permit #6 (issued May 3, 2021) that require new verification. The primary changes include increasing the core diameter and conducting work year-round. The stated purpose of the changes are to further confirm the extent of the mineral resources in the claim area to inform operations sequencing and minimize impacts to special aquatic resources. The proposed modifications will result in effects not previously assessed. The USACE has not provided NMFS a complete essential fish habitat (EFH) assessment for the exploratory drilling, case study mining, full-scale mining, and reclamation. Based on our review, we offer the following comments.

Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and Fish and Wildlife Coordination Act requires federal agencies to consult with us on all actions that may adversely affect EFH and other aquatic resources. The EFH consultation process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation process. In support of the consultation process, we previously provided comments during early coordination on this action on September 24, 2018, September 23, 2019, September 19, 2020, and November 20th 2020. We received an incomplete draft EFH assessment dated February 2021, provided to us in April 2021. We provided comments and requested a revised EFH assessment in our May 19, 2021 letter.

We requested additional information from the project lead as recently as July 29, 2021, for data regarding the number of core samples taken since 2018 and the presence of potential contaminants. As noted in the USACE's May 31, 2019 letter, mercury or lead remediation could potentially be associated with the project; however, the application to modify the existing permit makes no mention of these contaminants. We have not received any additional information from the USACE regarding contaminants or remediation measures to support the EFH consultation process and evaluate potential adverse impacts to federally managed fish and designated EFH. A complete EFH assessment or a completed environmental analysis required by the National Environmental Policy Act (NEPA) has not been provided to date.

We offer the following comments and recommendations on the proposed project modifications pursuant to the above referenced regulatory process.



Overview

The proposed changes to the exploration permit represents another incremental increase in the scope of exploration in both time and space. The proposed expansion of exploration would include a total of 502 core samples with up to a 4.5 inch diameter core to a depth of up to 31 feet or refusal. The total impacts from the survey activities would be up to 55.43 square feet of wetlands waters of the U.S. This is likely an underestimation of total impacts because it does not include impacts to the shallow wetlands caused by vessel operation including anchor drag, chain sweep and propeller disturbance. Moreover, the proposed project modification increases the operational timing window to year round activity encompassing 12-24 hours per day for up to six 30 day work periods. Up to six cores would be made daily in cluster sample sites that would not exceed 10 feet in diameter. Some of the project description revisions are included below along with an explanation of how the change impacts EFH (see Table 1).

Table 1. Proposed increases to the project and potential impacts to EFH.

Previous project descriptions	7/19/2021 Proposed Action	Impact to EFH
2-4 cores per day during a 14 day period of time	6 cores per day for 6 @ 30-day work windows	Increased substrate disturbance, noise and turbidity.
175 core samples	502 core samples	Increased noise, footprint and turbidity
2.25 inch diameter by 4 feet long sample tube	4.5 inch diameter drill, to 31 feet or resistance	Increased footprint and turbidity
Daylight activity window	12-24 hour activity window	Increased noise and turbidity
Operating months: during ice-bound	Year-round	Spring, summer, fall impacts to salmon migration
13.9 square feet impacted wetland	55.43 square feet impacted wetland	Increased footprint

These changes represent a significant expansion in exploring activities over the previously reviewed action. Incremental changes to the exploratory survey project over time may result in cumulative adverse effects to EFH not previously assessed. We note that the cumulative impacts of all the exploratory coring since 2018 has not been evaluated or considered.

We are currently reviewing a Notice of Application for State Water Quality Certification from the Alaska Department of Environmental Conservation. The stated purpose is to extract gold, including Bonanza Channel case study, from mining claims leased by IPOP. This stated purpose directly contradicts the purpose provided to the USACE in the application for permit modification (i.e., to explore for potential gold mining). Without a concise project description, purpose, and timeline of activities, it is difficult to conduct the statutory consultation process for accessing potential impacts to EFH.

We are eager to review both a completed EFH assessment and a NEPA analysis for this project to assess the cumulative impacts of the exploratory drilling, case study mining, full-scale mining, and reclamation.

Essential Fish Habitat

The General Permit Agency Coordination (GPAC) for Nationwide Permit #6 states that information regarding EFH is being gathered and a determination has not yet been made about the potential adverse effects of the expanded exploration activities on EFH. Similarly, the USACE did not make a determination of potential adverse effects to EFH in the 2018 GPAC. Based on our review of the permit modification application, the proposed action may adversely affect EFH; however the adverse effects may be temporary and localized.

In our September 24, 2018 letter, conservation recommendations for the GPAC included “adhering to seasonal restrictions to minimize impacts to aquatic resources and subsistence activities”. The proposed increases to the project are likely to affect EFH and federally managed fish (Table 1). Specifically, the proposed in-water activity will occur during ice-free months at local anadromous waters during Pacific salmon migrations. The primary concern is increased turbidity and the potential for contamination of EFH during the proposed expanded exploration activities. The increased turbidity may affect the migration behavior of adult salmon as they approach their natal waters or smolting migrations as juvenile salmon use the brackish wetlands to transition to the marine environment.

EFH Conservation Recommendations

We acknowledge that you are currently gathering information regarding the potential impacts on EFH and federally managed species, and are in the process of analyzing effects to EFH. We look forward to receiving the EFH assessment pursuant to the EFH regulations at 50 CFR 600.920(e). Upon receipt of your EFH assessment, we will provide EFH conservation recommendations in accordance with MSA Section 305(b)(4)(A). Interim to your EFH assessment, we offer the following measures for avoiding direct and cumulative project related impacts.

1. Monitoring turbidity during operations and ceasing operations if turbidity exceeds predetermined threshold levels is an effective operations method for mitigating impacts on migratory fish.
2. Silt curtains are an effective method to minimize turbidity related impacts to EFH from exploration and other sediment disturbing activities.



We understand that IPOP, LLC is only proposing to conduct exploration activities under the USACE Nation Wide Permit process. This proposed project purpose is inconsistent with the stated project purpose for the state’s permitting action. The project purpose should be clarified and consistent among the regulatory agencies.

We await your EFH assessment. Incorporating mitigation measures into that assessment will support the overall consultation process. Please also note that a distinct supplemental EFH consultation must be reinitiated pursuant to 50 CFR 600.920(1) if new information becomes

available or the project is revised in such a manner that affects the basis for the above EFH conservation recommendations.

If you have any questions regarding this project, please contact Seanbob Kelly, seanbob.kelly@noaa.gov, or Stefanie Coxe, stefanie.coxe@noaa.gov.

Sincerely,

James W. Balsiger
Administrator, Alaska Region

CC:

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THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Fish and Game

HABITAT SECTION
Fairbanks Regional Office

1300 College Road
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Main: 907.459.7289
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FISH HABITAT PERMIT

FH21-III-0173

ISSUED: August 10, 2021
EXPIRES: December 31, 2022

IPOP LLC
Attn: Beau Epstein
981 W Charleston Blvd #2-444
Las Vegas, NV 89117

RE: APMA 2875
Exploratory Drilling
Bonanza Channel (Stream Number 333-10-11650-2001)
Sections 18, 19, R 29W, T 11S, KRM (Solomon C-6)
Sections 24-26, R 30W, T 11S, KRM, (Solomon C-6)
Median Project Location: 64.5194 N, 164.5685 W

Dear Beau Epstein:

Pursuant to AS 16.05.871 (b), the Alaska Department of Fish and Game (ADF&G) Habitat Section has reviewed your proposal conduct exploratory drilling in your placer claims in the Bonanza Channel.

Project Description

IPOP LLC proposes to conduct sediment core drilling in the Bonanza Channel of Safety Sound. Drilling will be conducted from boats during the ice-free season, and through the ice during the winter. A total of 502 bore holes up to 4.5 inches in diameter will be drilled in claims DKS N 27-45. Bore holes will be approximately 31 feet in depth with a coring rate of up to six cores per day.

During the summer, drilling will be accomplished from a pontoon boat anchored by hand-driven pilings. An external casing will be used to contain turbidity during drilling. To the extent practicable, areas with abundant aquatic vegetation will be avoided.

During winter drilling activities, a tracked Hagglund vehicle and pontoon sled will be used to transport the drill rig and equipment to each hole location. Winter drilling will take place between January 1 and May 31, with the end date dependent on safe ice conditions.

Exploratory drilling was previously authorized under FH18-III-0167 and a subsequent amendment, and FH19-III-0145 and two amendments.

Anadromous Fish Act

The Bonanza Channel of Safety Sound (Stream Number 333-10-11650-2001) has been specified as being important for the spawning, rearing, or migration of anadromous fishes pursuant to AS 16.05.871(a). Chum, coho and pink salmon, as well as anadromous Dolly Varden char, are documented as present and migrate through the waterbody. The waterbody may also provide rearing habitat for juvenile anadromous salmonids when temperatures are suitable. Your project as proposed should not have adverse effects on anadromous fish or their habitat and should not obstruct the free passage of fish.

In accordance with AS 16.05.871(d), your project is approved subject to the project description and permit terms, with the following stipulations:

- 1) Drilling/coring shall be conducted in a manner that assures that peak sound pressure levels within fishbearing waters does not exceed 206 dB at any time. Inwater noise levels of 180 dB or higher shall be immediately reported to this office by email or telephone, and site specific mitigation measures may be required to prevent fish movement delays or redirection.
- 2) Winter crossings with equipment and ATVs shall occur in shallow areas where the ice is naturally frozen to the substrate or in areas where ice thickness is adequate to support equipment. Equipment shall not enter open water during winter.
- 3) Construction or maintenance of dams, diversions, deflectors, or any other structure that may impede the efficient passage of fish is prohibited. All aspects of this project shall be designed, installed, and maintained to maintain important fish habitat and to accommodate the efficient passage and movement of fish, both upstream and downstream, for the duration of the project. Any obstruction to the free passage of fish shall be restored to the satisfaction of the ADF&G Habitat Section.

Permit Terms

This letter constitutes a permit issued under the authority of AS 16.05.871 and must be retained on site during project activities. Please be advised that this determination applies only to activities regulated by the Habitat Section of ADF&G; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility

to secure other permits; state, federal, or local. You are still required to comply with all other applicable laws.

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the ADF&G Habitat Section and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any provision contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the ADF&G Habitat Section. Therefore, it is recommended that you consult the Habitat Section before considering any deviation from the approved plan.

You shall give an authorized representative of the state free and unobstructed access to the permit site, at safe and reasonable times, for the purpose of inspecting or monitoring compliance with any provision of this permit. You shall furnish whatever assistance and information the authorized representative reasonably requires for monitoring and inspection purposes.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. You shall mitigate any adverse effect upon fish or wildlife, their habitats, or any restriction or interference with public use that the commissioner determines was a direct result of your failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

You may appeal this permit decision relating to AS 16.05.871 in accordance with the provisions of AS 44.62.330-630.

Please direct questions about this permit to Habitat Biologist Justin Burrows at 907-459-7254 or justin.burrows@alaska.gov.

Sincerely,
Doug Vincent-Lang, Commissioner



BY: Audra L. J. Brase, Regional Supervisor
Habitat Section
Alaska Department of Fish and Game

ecc: Al Ott, ADF&G Habitat, Fairbanks
Brendan Scanlon, ADF&G SF, Fairbanks
James Menard, ADF&G CF, Nome
Permit Coordinator, ADF&G SF
NOAA, HCD, Anchorage
ADNR Mining and Water, Fairbanks
Placer Notices, ADEC, Fairbanks
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jb/AB